U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT ASSISTANT SECRETARY FOR HOUSING-FEDERAL HOUSING COMMISSIONER

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MATERIALS RELEASE NO. 1085d

ISSUE DATE: April 26, 1996

REVIEW DATE: April 26, 1999

TO: DIRECTORS, HOUSING DIVISION

DIRECTORS, MULTIFAMILY DIVISION DIRECTORS, SINGLE FAMILY DIVISION

SUBJECT:

I. Product APP (Atactic Polypropylene) and SBS (Styrene-Butadine-Styrene) polymer modified Bitumen Roofing Membranes

2. Name and Address U. S. Intec, Inc. of Manufacturer 1212 Brai Drive

P. O. Box 2845

Port Arthur, TX 77643

Technical Service Roofing Hotline 1-800-624-6832

Data on the nonstandard product described herein have been reviewed by the Department of Housing and Orban Development and determination has been made that it is considered suitable from a technical standpoint for the use indicated herein. This Release does not purport to establish a comparative quality or value rating for this product as compared to standard products normally used in the same manner.

This Materials Release cannot be used as an indication of endorsement, approval or acceptance by HUD of the described product, and any statement or representation, however made, indicating such approval, endorsement or acceptance by HUD is unauthorized. See Code 18, U.S.C. 709.

Any reproduction of this Release must be in its entirety.

<u>USE:</u> Brai APP membranes are designed specifically as torch weld membranes to be used as a fully adhered base or cap membrane in single or multi-ply roof system configurations. Brai/Flex SBS membranes are designed to be applied with either hot asphalt or Matrix SB cold adhesive as a fully adhered cap membrane in two or three-ply roof systems. Both the APP and SBS membranes are used as flashing material for their respective systems. Both systems are fire rated (FR) by Underwriters Laboratories, Inc. (UL) and Factory Mutual Research Corporation (FM) when installed in accordance with UL and FM requirements. Contact the U.S. Intec Technical Service Hotline for further information on UL and FM requirements. These systems can be installed over decks and insulation that meet HUD requirements and are approved by U. S. Intec, Inc. Contact U. S. Intec Technical Service Hotline for further information.

# **DESCRIPTION:**

### BRAI APP MEMBRANES:

The Atactic Polypropylene (APP) SP4, SILVER 80 and GBSP-4 cap membranes are manufactured in roll sheet form using polymer modified bitumen, reinforced with a polyester mat. The modified asphalt used is formulated by blending non-blown asphalt with APP thermoplastic polymers. The modified bitumen compound is reinforced with a non-woven, continuous filament, 170 gram polyester mat. The top surface of the SP4 and SILVER 80 are unsurfaced and smooth. The GBSP-4 is surfaced with factory embedded granules. A polypropylene film is attached to the bottom of the membranes to function as a non-blocking agent, while facilitating the torch welding application.

### BRAI APP FR MEMBRANES:

The GBSP-4FR product is the GBSP-4 sheet with fire resistant additives included, which allow it to achieve a fire rating without a coating. Consult Technical Services Hotline for specific requirements.

## BRAI/FLEX SBS MEMBRANES:

The Styrene Butadiene Styrene (SBS) M, 170, G3 Cap and G2 Cap membranes are hot or cold applied, SBS roof membranes, manufactured in rolled sheet form, using polymer modified bitumen reinforced with polyester or glass fiber mat and surfaced with granules. The modified bitumen is formulated by blending non-blown asphalt with SBS elastomeric polymers. This modified bitumen compound is reinforced with polyester (1.7 - 2.3) lb/sq) mats which provide tensile strength and puncture resistance. A fine mineral particulate covers the bottom of the membranes to function as a non-blocking agent that facilitates application. These membranes are designed to be applied with either hot asphalt or Matrix SB cold adhesive as fully adhered cap membranes in two or three-ply roof system configurations.

## BRAI/FLEX FR MEMBRANES:

The fire rated (FR) 4.5 and 3/2 SBS roof membranes are manufactured in rolled sheet form using polymer modified bitumen and fire retardant additives, reinforced with a glass fiber mat. The modified bitumen used in FR membranes is formulated by blending non-blown asphalt with SBS elastomeric polymers and fire retardant compounds. The top surfaces of FR 4.5 and FR 3 are covered with embedded granules, FR 2 is smooth surfaced and is designed to be used as a base sheet with FR 3. A fine mineral particulate covers the bottom surface to function as a non-blocking agent and facilitate application. FR membranes can be applied with either hot asphalt or Matrix SB cold adhesive as a fully adhered cap membrane in two or three-ply roof system configurations.

### MATERIALS:

All roofing system materials shall be those specified and/or supplied by U. S. Intec, Inc. (Intec) or its licensed roofing contractor. Data on physical properties of the membrane (tensile strength, elongation, and low temperature flexibility) are on file at HUD Headquarters, and may be obtained from Intec Technical Services.

## FIRE AND WIND CLASSIFICATION:

Each roofing system shall resist design wind forces specified in ASCE 7-88. Fire classification shall be in accordance with ASTM E-108. Testing shall be performed by an independent laboratory with follow-up service and listing capability. Contact U. S. Intec, Inc. Technical Services Hotline for further information on specific systems.

### **INSTALLATION:**

### 1. General

The U. S. Intec, Inc. APP and SBS roofing systems shall be installed by a Intec, Inc. Card Club Member and/or Certified Contractor. Installation procedures shall be in compliance with the Intec Modified Bitumen Specification Manual, APP-SBS MAN./5M (latest edition). The General Requirements, Installation Requirements and Safety Precautions Sections of the Intec Manual shall be considered part of, and used in conjunction with all U. S. Intec, Inc. roof system specifications. Obtain necessary data from Intec Technical Services.

# 2. Substrate Preparation

Preparation of the substrate shall comply with the latest edition of the Intec Modified Bitumen Specifications Manual. Roof design, including the deck, is the responsibility of the architect, engineer or building owner.

### 3. Insulation

The selection of insulation type, thickness and configuration is the responsibility of the architect, engineer, or owner. Intec reserves the right to accept or reject any roof insulation as an acceptable substrate for attachment of U. S. Intec roof systems. Prior approval, in writing, shall be obtained for any and all insulation. Sprayed-in-place polyurethane foam is not an acceptable substrate for the application of U. S. Intec roofing membranes.

### INSPECTION:

A designated representative of Intec shall make inspections of the installation at the following intervals:

- Prior to delivery of materials to accept or reject the roof deck to which the roofing system is to be applied.
- During the installation, to inspect and approve the installation techniques and methods.
- 3. Upon completion, to give final approval to the roofing system.

# **WARRANTY:**

No less than a ten-year warranty shall be given to the owner by Intec to read as follows:

Intec hereby warrants to the owner of its roofing system, installed by an applicator approved by Intec, that the system will remain in a watertight condition and the insulation will retain its thermal value for a period of not less than ten years from the date of installation. In the event the aforesaid system fails to function as warranted above, whether on account of defective materials, faulty installation or on account of normal processes of wear and aging, Intec will make or cause to be made such repairs and maintenance necessary, to the roofing and insulation, to enable the system to perform as warranted above.

Intec's obligations to repair or maintain the system under this warranty shall not be in force or effect unless:

- 1. Intec is notified of any failure of the system covered by the warranty within thirty (30) days following such failure.
- 2. The system is installed by an Intec Card Club Member and/or Certified Contractor using Intec materials to the satisfaction of the U. S. Intec Technical Services Department.
- 3. No alterations or repairs to the system are made without the prior written approval of Intec as to the extent, methods and material used.

## NOTE:

Intec assumes no liability for any failure of the system resulting from:

- 1. Wind, which exceeds the design wind, lightning or earthquake.
- 2. Failure of the product caused by structural defects of the building on which the system is applied.
- 3. Deliberate misuse of the product.
- 4. Failure of the system caused by leakage or any other cause from an adjacent structure.

## MANUFACTURER'S RESPONSIBILITIES:

Issuance of this Materials Release (MR) commits the manufacturer to fulfill, as a minimum, the following:

- 1. Produce, label and certify the material, product or system in strict accordance with the terms of this MR.
- 2. Provide necessary corrective action in a timely manner for all cases of justified complaint, poor performance or failure reported by HUD.
- 3. When requested, provide the Office of Consumer and Regulatory Affairs, HUD Headquarters, with a representative list of properties, in which the material, product or system has been used, including complete addresses or descriptions of locations and dates of installation.

4. Inform HUD in advance of changes in production facilities, methods, design of the product, company name, ownership or mailing address.

### **EVALUATION:**

This MR shall be valid for a period of three years from the date of initial issuance or most recent renewal or revision, whichever is later. The holder of this MR shall apply for a renewal or revision 90 days prior to the Review Date printed on this MR. Submittals for renewal or revision shall be sent to HUD Headquarters. Appropriate user fees shall be sent to:

U. S. Department of Housing and Urban Development Technical Suitability of Products Fees P. O. Box 954199 St. Louis, MO 63195-4199

The holder of this MR may apply for revision at any time prior to the Review Date. The revision may be in the form of a supplement to the MR.

If the Department determines that a proposed renewal or supplement constitutes a revision, the appropriate User Fee for a revision will need to be submitted in accordance with Code of Federal Regulations 24 CFR 200.934, "User Fee System for the Technical Suitability of Products Program," and current User Fee Schedule.

## CANCELLATION:

Failure to apply for a renewal or revision shall constitute a basis for cancellation of the MR. HUD will notify the manufacturer that the MR may be canceled when:

- conditions under which the document was issued have changed so as to affect production of, or to compromise the integrity of the accepted material, product, or system,
- the manufacturer has changed its organizational form without notifying HUD, or
- 3. the manufacturer has not complied with responsibilities it assumed as a condition of HUD's acceptance.

However, before cancellation, HUD will give the manufacturer a written notice of the specific reasons for cancellation, and the opportunity to present views on why the MR should not be canceled. No refund of fees will be made on a canceled document.